

# Allergic Reactions to Drugs

## A Survey on Hospital Practices of Soliciting Medical Information from Newly Admitted Patients

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■ *The matter of allergic reaction to drugs is causing serious medicolegal problems in hospitals to both physicians and hospitals. This survey seeks to alert the medical profession and hospitals to the problem, what is being done to cope with it in some hospitals, and to emphasize that the duty to make necessary inquiries belongs primarily to the medical profession.*

*The form described at the end of this report is a suggestion and is not intended to be reproduced and used in all instances. The medical staff and administration of each hospital should develop a form that is appropriate for its use.*

BECAUSE OF AN apparent increase in frequency and seriousness of allergic reactions to drugs, some hospitals have undertaken to share the responsibility of prevention. It has been learned that these hospitals are determining from newly admitted patients whether or not they have knowledge of previous reactions to drugs and whether or not they have recently been taking certain drugs. Traditionally, the duty for such inquiries belongs to the medical profession. While not relieving the medical profession of its responsibility, these hospitals are creating certain legal hazards for themselves; however, there can be little doubt that such action will ultimately enure to the benefit of their patients.

To ascertain (1) how widespread is this trend, (2) whether or not uniformity should be encouraged and (3) whether or not the methods can be refined or improved, the Joint Medicolegal Education Committee of the California Hospital Association and California Medical Association requested

a survey of member hospitals in California. This article represents the results and recommendations.

### Methods and Materials

On March 1, 1963, 450 questionnaires were mailed to member hospitals of all classes. By May 1, 1963, 340 (75.5%) were returned. After thorough evaluation, only 8 of these had to be discarded, leaving a working number of 332 (73.7%). The interest in this study was a major factor for the excellent response.

The questionnaire contained the following items:

1. Is it the policy or practice of your hospital to require designated employees to solicit specific medical information [(1) drugs recently taken and (2) allergies, particularly to drugs] from newly admitted patients?
2. What class of employee has been designated to acquire this information?
3. What is the extent of information solicited?
  - (a) Drugs recently taken by patients, particularly antibiotics and steroids?

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(b) Allergies, particularly to drugs?

4. Where is this information entered on the hospital chart?

5. Do you utilize a particular form or a rubber stamped outline which is to be filled out by the employee or the patient? (A sample was requested.)

6. When did your hospital initiate this procedure?

7. If known, briefly outline the reasons for initiating this procedure.

## Results

1. 229 (69.0%) responding hospitals do have a policy or practice of requiring designated employees to solicit from newly admitted patients specific medical information concerning allergies and/or drugs recently taken. 103 (31.0%) replied negatively; however, 7 of these submitted checklists to be completed by the attending physician (not an employee). All hospitals submitting preoperative or preanesthetic checklists were counted as negative replies unless it could be determined that questions on allergies and drugs, in addition to the items on the checklists, are asked of all patients.

2. The affirmatively replying hospitals were readily divided into three distinct categories with respect to the class or classes of employees which have been designated to obtain this information:

CATEGORY A. 171 hospitals (74.7% of affirmatively replying hospitals and 51.5% of all reporting hospitals) designated nonphysician employees only. These are: registered nurses (161), clerks (28), licensed vocational nurses (LVN) or aides (25), miscellaneous (5) and combinations (41).

CATEGORY B. 42 hospitals (18.3% of affirmatively replying hospitals and 12.7% of all reporting hospitals) designated physician-employees only. They are: interns and residents (17), residents only (14), interns only (5), house staff physicians (5) and Fellow (1).

CATEGORY C. 16 hospitals (7.0% of affirmatively replying hospitals and 4.8% of all reporting hospitals) designated both physician and nonphysician (mixed) employees. They are: nurse and resident (6), nurse and intern/resident (5), nurse and intern (2), nurse and house staff physician (1), nurse, clerk and intern/resident (1) and extern and intern (1).

Hospitals represented in Category B (information sought by physician employees only) are predominantly of the tax supported variety (26 of 42). The opposite was found in the other groups.

To be seen below, the category by designated employee correlates closely with the type of information sought and how it is sought; therefore, most of the remaining statistics will be presented by category.

3. With respect to information sought by designated employees, differences exist as to the kind of information asked for, particularly between allergies and drugs recently taken, which require separate consideration.

a. Designated employees of all 229 affirmatively reporting hospitals (69.0% of all reporting hospitals) seek *some* information concerning allergies.

Inquiry By	Number of Hospitals	Percent of Affirmatively Reporting Hospitals of Same Class	Percent of All Reporting Hospitals
Nonphysician .....	171	100	51.5
Physician .....	42	100	12.7
Mixed .....	16	100	4.8
Total .....	229	100	69.0

b. Designated employees of only 128 (55.9%) affirmatively reporting hospitals (38.5% of all reporting hospitals) seek *some* information concerning drugs recently taken.

Inquiry By	Number of Hospitals	Percent of Affirmatively Reporting Hospitals of Same Class	Percent of All Reporting Hospitals
Nonphysician .....	72	42.1	21.7
Physician .....	41	97.6	12.3
Mixed .....	15	93.8	4.5
Total .....	128	55.9	38.5

*Comment:* Nearly all hospitals designating physician or mixed employees require information on allergies and drugs recently taken. In the nonphysician class, the number is sharply reduced with respect to drugs recently taken.

c. Where it can be determined, most information on allergies is sought by general questions.

Inquiry By	Form of Questions:		
	General	Specific	Undetermined
Nonphysician .....	55	19	97
Physician .....	2	2	38
Mixed .....	1	2	13
Total .....	58	23	148

d. Where it can be determined, most information on drugs recently taken is sought by specific questions.

Inquiry By	Form of Questions:		
	General	Specific	Undetermined
Nonphysician .....	6	26	40
Physician .....	0	3	38
Mixed .....	2	0	13
Total .....	8	29	91

*Comment:* General questions are limited to nonspecific classifications: "Are you allergic to any foods or drugs?"; "Have you taken any drugs recently?" Specific questions contain one or more drugs identifiable by name or by genus. Questions were classified as undetermined if the submitted questionnaire was answered affirmatively with respect to items 3 (a) and/or 3 (b), but without further refinement or disclosure of exact question form.

4. Except for specific checklists, there is little uniformity as to where the information sought is preserved for use. The following is a tabulation, according to designated employee class, of the sites of entry and their incidence.

Location of Recorded Information	Inquiry By		
	Nonphysician Employees 171 Hospitals	Physician Employees 42 Hospitals	Mixed Physicians and Nonphysicians 16 Hospitals
Nurses Notes .....	88	3	8
Kardex/Rand .....	28	....	3
Order Sheet .....	24	8	5
Medical History .....	7	36	14
Identaband .....	4	....	....
Progress Notes .....	3	5	1
Treatment Sheet .....	2	....	....
Anesthetic Record .....	....	1	....
Patient's Bed .....	1	....	....
Others .....	26	....	....
Cover/Holder of chart in addition to one or more of the above ....	101	17	14
Cover/Holder of chart exclusively .....	17	1	....
Nurses Station exclusively .....	1	....	....

5. In an effort to determine exactly what is asked of patients concerning allergies and/or drugs recently taken, and how such information, both positive and negative, is recorded, the hospitals were requested to submit specific forms or outlines, if any, which are used for this purpose. 76 hospitals (22.9% of all reporting hospitals and 33.2% of all affirmatively reporting hospitals) indicated that a form or outline is utilized; however, only 70 were submitted for review. Some hospitals submitted stickers which are usually placed on the chart cover or holder. These were not counted affirmatively since it appeared such stickers are not used in the absence of allergy. Great variety exists in the forms and outlines. Some are elaborate and detailed checklists. Others consist of nothing more than a printed question, "Allergies?" followed by a blank space. These were counted affirmatively since it appeared that they require a recorded answer, one way or another.

a. As noted previously, all 229 affirmatively reporting hospitals (69.0% of all reporting hospitals) indicated that *some* information is sought concerning allergies. 75 hospitals (32.8% of affirmatively reporting hospitals and 22.6% of all reporting hospitals) disclosed the use of specific forms or outlines for allergies.

Inquiry By	Number of Hospitals Asking About Allergies	Number Using Forms for Inquiry	Percent Using Forms or Outlines
Nonphysician .....	171	69	40.4
Physician .....	42	3	7.1
Mixed .....	16	3	18.8
Total .....	229	75	32.8

b. As noted previously, only 128 (55.9%) of the affirmatively reporting hospitals (38.5% of all reporting hospitals) indicated that *some* information is sought concerning drugs recently taken. Of these, 33 (25.8%) hospitals (9.9% of all reporting hospitals) disclosed the use of specific forms or outlines for drugs recently taken.

Inquiry By	Number of Hospitals Asking About Drugs	Number Using Forms for Inquiry	Percent Using Forms or Outlines
Nonphysician .....	72	30	41.7
Physician .....	41	1	2.4
Mixed .....	15	2	13.3
Total .....	128	33	25.8

c. 32 hospitals (42.1% of all hospitals utilizing forms or outlines for allergies or drugs recently taken) indicated that the forms or outlines covered both topics.

Inquiry By	Number Using Forms or Outlines Covering Both Allergies and Drugs	Number Using Forms or Outlines Limited to One Topic	Percent Using Combined Forms or Outlines
Nonphysician .....	29	41	41.4
Physician .....	1	2	33.3
Mixed .....	2	1	66.7
Total .....	32	44	42.1

d. As noted previously, where it can be determined, most information on allergies is sought by general questions. This observation is also true for the submitted forms and outlines on allergies (72.5%).

Inquiry By	Number Using Form		Percent General Questions
	Form of Questions: General	Specific	
Nonphysician .....	46	17	73.0
Physician .....	2	1	66.7
Mixed .....	2	1	66.7
Total .....	50	19	72.5

e. As noted previously, where it can be determined, most information on drugs recently taken is sought by specific questions. This observation is also true for the submitted forms and outlines on drugs recently taken (81.5%).

Inquiry By	Number Using Form		Percent Specific Questions
	Form of Questions: General	Specific	
Nonphysician .....	4	20	83.3
Physician .....	0	1	100.0
Mixed .....	1	1	50.0
Total .....	5	22	81.5

f. The identification and incidence of specific items found on the submitted forms and outlines for allergies are:

Penicillin .....	16
Narcotics/morphine .....	11
Novocain (procaine) .....	6
Aspirin .....	5
Antibiotics .....	5
Sulfa drugs .....	4
Codeine .....	4
Serum (TAT) .....	4
Adhesive tape .....	3
Merthiolate/Mercurochrome .....	3
Demerol (Meperidine) .....	2
Cosmetics .....	2
Eggs .....	2
Chocolate .....	2
Milk .....	2
Streptomycin .....	2
Tetracycline .....	1
Achromycin .....	1
Dyes used in x-rays .....	1
Total .....	76

g. The identification and incidence of specific items found on the submitted forms and outlines for drugs recently taken are:

Cortisone .....	27
ACTH .....	15
Tranquilizer .....	10
Hypotensives .....	7
Digitalis .....	3
Barbiturates/sedatives .....	3
Anticoagulants .....	3
Aspirin .....	2
Desiccated thyroid .....	2
Isotopes .....	1
Medication for asthma .....	1
Total .....	74

6. While some hospitals for many years have been requiring their employees to interrogate newly admitted patients on the topics of allergies and/or drugs recently taken, it appears that the majority have initiated this procedure in the last 5 years.

<i>Year</i>	<i>Number of Hospitals Initiating the Procedure</i>
1963 .....	3
1962 .....	33
1961 .....	33
1960 .....	23
1959 .....	17
1958 .....	19
1957 .....	8
1956 .....	5
1955 .....	5
1954 .....	3
Before 1954 .....	23
Total .....	172
No date given .....	24
"Unknown" .....	11
"Since the beginning" .....	18
"Years ago" .....	4
Total .....	57

7. Each of 145 affirmatively reporting hospitals listed one or more relevant reasons for initiating the policy or practice of requiring designated employees to obtain from newly admitted patients

information on allergies and/or drugs recently taken. They can be divided into the following general categories:

To protect the patient .....	60
Because of past experience with reactions or publicity about reactions .....	26
To help the doctors .....	25
Requested by doctors .....	20
Because it is good practice .....	19
To protect the hospital .....	13
Total .....	163
"Unknown" or irrelevant reasons given (i.e., "To see if patient is allergic") .....	36
No reason stated .....	48
Total .....	84

Sixteen hospitals which have not initiated this policy or practice volunteered the reason for not doing so by stating that the acquisition of such medical information is the responsibility of the doctor.

## Discussion

Sixty-nine per cent of reporting hospitals require their employees to obtain information on allergies from newly admitted patients. Thirty-eight and one-half per cent have a similar policy for drugs recently taken. The disparity is probably due to the greater notoriety of allergic reactions as compared with untoward results of drug interactions. Additionally, while general problems of allergy have been known for a long time, the problems of drug interaction, particularly in surgical patients, have received increasing attention only recently. The present incidence of asking about allergies is sufficient to warrant consideration by all hospitals.

Only considerations of time, availability of personnel and possible hospital liability loom as deterrents to uniformity among hospitals with respect to such practices. With respect to time required for available employees to inquire and record this information, each hospital must decide on the basis of its own special circumstances. As to potential hospital liability there is little question that the assumption of this duty increases the risk to hospitals whenever an error is made; however, it is probable the practices referred to herein will benefit, rather than harm the hospitals, by reducing the occurrences of untoward reactions. It must be emphasized that solicitation of information on these topics by the hospital does not relieve the treating physician of his primary responsibility of checking the answers and of inquiring further when indicated. This constitutes a sharing, not a transference, of duties.

If indeed it would be beneficial for most hospitals to undertake the practice of soliciting information on allergies and drugs recently taken, it would be

# FOR PATIENT'S PROTECTION

(To be completed and inserted in front of chart)

1. *Allergies and Sensitivities:* Is there a history of skin or other untoward reaction or sickness following injection or oral administration of:

	Circle One			What Drug or Food?
Penicillin or other antibiotics .....	Yes	No	Don't Know	_____
Morphine, Codeine, Demerol or other narcotics .....	Yes	No	Don't Know	_____
Novocain or other anesthetics .....	Yes	No	Don't Know	_____
Aspirin, empirin or other pain remedies .....	Yes	No	Don't Know	_____
Sulfa drugs .....	Yes	No	Don't Know	_____
Tetanus antitoxin or other serums .....	Yes	No	Don't Know	_____
Adhesive tape .....	Yes	No	Don't Know	_____
Iodine or merthiolate .....	Yes	No	Don't Know	_____
Any other drug or medication .....	Yes	No	Don't Know	_____
Any foods, such as egg, milk or chocolate .....	Yes	No	Don't Know	_____

2. *Drugs Recently Taken:* Within the past six months has the patient taken:

Cortisone .....	Yes	No	Don't Know
ACTH .....	Yes	No	Don't Know
Anticoagulants .....	Yes	No	Don't Know
Tranquilizers .....	Yes	No	Don't Know
Hypotensives (high blood pressure medicines) .....	Yes	No	Don't Know

Has the patient *ever* received treatment for asthma, rheumatism or rheumatic fever? .....

Yes	No	Don't Know
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Source of information, if other than patient:

Signature of person acquiring this information: \_\_\_\_\_ Date: \_\_\_\_\_

wise to develop a standard procedure. The present survey showed little uniformity in method of solicitation and in location of records. A major factor may be the relatively recent initiation of such practices in many hospitals, with inadequate time for proper evaluation.

Although 74.7 per cent of hospitals already soliciting information on allergies and 56.3 per cent of those already soliciting information on drugs recently taken designate only non-physician employees to carry out these tasks, there is no basis to conclude from the survey itself that one class of employee would be better than another for this purpose. However, after review by the Joint Medicolegal Education Committee, it is recommended that the task of inquiring be limited to medical and nursing personnel.

Uniformity of questioning and of recording would be gained by the use of some type of permanent checklist (such as, for example, the suggested sample form printed above). This should minimize the

chance of omission while offering better availability of the information, both positive and negative. At present only one-third of all hospitals use forms or outlines, and many of these are skimpy and irregularly located.

With the accumulated information derived from this survey a checklist was composed which, when properly completed, can be placed permanently inside the front cover of the patient's chart. All affirmative answers to allergies might also be noted on a sticker on the face of the chart cover or holder and at the nurses' station.

Since circumstances vary among hospitals, the suggestions made here must be evaluated in each hospital in the light of local conditions. It is the responsibility of the medical staff of each hospital to determine the propriety of initiating any such hospital function, the extent of information to be sought, the method of solicitation and the location of the information received.

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